REMARKS

Claims 1-2 and 7-9 are pending in this application. By this Amendment, claim 2 is amended, claims 3-6 are canceled and claim 9 is added.

I. Claims 5 and 6 Satisfy Formal Requirements

Claims 5 and 6 are objected to under 37 C.F.R. §1.75(c) as being of improper dependent form. Accordingly, claims 5 and 6 are canceled. Withdrawal of the objection to claims 5 and 6 is respectfully requested.

II. Claims 3 and 4 Satisfy the Requirements of 35 U.S.C. §112, Second Paragraph

Claims 3 and 4 are rejected under 35 U.S.C. §112, second paragraph as indefinite. Claims 3 and 4 are canceled. Withdrawal of the rejection of claims 3 and 4 under 35 U.S.C. §112, second paragraph is respectfully requested.

III. The Claims Define Patentable Subject Matter

Claims 1-4 and 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 2002-040428 in view of Kataoka et al.; claims 5 and 6 are rejected under 35 U.S.C. §103(a) as unpatentable over JP 2002-040428 and Kataoka and further in view of Miyatake et al.; and claim 8 is rejected under 35 U.S.C. §103(a) as unpatentable over JP 2002-040428 and Kataoka and further in view of Yano. These rejections are respectfully traversed.

The applied art does not teach or suggest all of the claim limitations

None of the applied art teaches, discloses or suggests setting a phase shift amount of a ¼ wavelength retardation plate based on the incident light, as claimed in claim 1.

Instead, in Kataoka, the incident light (from the upper side of Fig. 1A) is white light and the phase shifters 7 have thickness based on one of red, green, or blue light. (The white light is filtered to red, green, or blue by passing through the color filters 13.)

Further, during a dark display as shown in Fig. 1A, the liquid crystal layer 6 polarizers incident light into linear polarized light. The phase shifter 7 converts the incident linear

polarized light into circularly polarized light. The reflection electrodes 4 reflect the circularly polarized light, thereby reversing the rotation direction of the light. When the phase shifter 7 converts the circularly polarized light back into linearly polarized light, the axes of polarization will be perpendicular to that of the liquid crystal layer alignment, resulting in a dark display.

During a bright display as shown in Fig. 2, the liquid crystal layer 6 does not influence the incident light so that unpolarized light fall incident on the phase shifter 7. Because the phase shifter 7 does not influence unpolarized light, light passes undisturbed through the phase shifter 7, reflects off the reflection electrodes 4 and back through the liquid crystal layer for a bright display.

JP '428 discloses the linear polarization plate 21 polarizes the incident light into linear polarized light. The ¼ wavelength plate 22 converts the incident linear polarized light into circular polarized light. The liquid crystal layer either reverses the rotation direction of the circular polarized light for a dark display, or transmits the circular polarized light as is for a bright display. The ¼ wavelength plate 32 converts the circularly polarized light from the liquid crystal layer 10 into linear polarized light with a polarization axes depending on rotation direction of the light from the liquid crystal layer. That is, the polarization axes of the light will be perpendicular to that of the linear polarization plate 31 for a dark display and parallel for a bright display.

It would not have been obvious to combine the applied art

It is well settled that a rejection based on 35 U.S.C. §103(a) must rest on a factual basis, which the Patent and Trademark Office has the initial duty of supplying. In re GPAC, Inc., 57 F.3d 1573, 1582, 35 USPQ2d 1116, 1123 (Fed. Cir. 1995). A showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." *C.R. Bard, Inc. v. M3 Sys. Inc.*, 157 F.3d

1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This evidence may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. See *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996). However, the suggestion more often comes from the teachings of the pertinent references. See *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459(Fed. Cir. 1998). This showing must be clear and particular, and broad statements drawing conclusions about the teaching of multiple references, standing alone, are not "evidence." See *In re Dembiczak*, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617. However, the suggestion to combine need not be express and "may come from the prior art, as filtered through the knowledge of one skilled in the art." *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 1472, 43 USPQ2d 1481, 1489(Fed. Cir. 1997).

It is impermissible for an Examiner to engage in hindsight reconstruction of the prior art using Applicant's claims as a template and selecting elements from references to fill the page. The references themselves must provide some teaching whereby the claimed combination would have been obvious. *In re Gorman*, 911 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir, 1991) (emphasis added). That is, something in the prior art as a whole must suggest the desirability, and thus obviousness, of making the combination. See, *In re Beattie*, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992); *Lindemann Machinenfabrik GMBH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984). He or she may not, because he or she doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See, *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

If the PTO fails to meet this burden, then the applicant is entitled to a patent. *In re Glaug*, 62 USPQ2d 1151 (Fed. Cir. 2002).

The Examiner has failed to meet this burden. As discussed above, a rejection under on 35 U.S.C. §103(a) must be based on a facts and include a showing of a suggestion, teaching or *motivation* to combine the prior art references.

One skilled in the art would not think to combine the configuration disclosed in Kataoka with that of JP '428 because the device of Kataoka is a guest-host liquid crystal display device. A guest-host type display panels include a dye (guest) mixed in the liquid crystal (host). The dye aligns itself with the molecules of the liquid crystal. As a result, when the liquid crystal molecules are aligned in one direction, the dye absorbs incident light, resulting in a dark display. When the liquid crystal molecules are aligned in another direction, incident light passes through the liquid crystal layer unaffected by the dye, resulting in a bright display.

Guest-host liquid crystal display devices are well known for not requiring more than a single polarization plate. Therefore, one skilled in the art would not think to combine the configuration of Kataoka, which needs at the most one polarization plate, with that of JP '428, which requires a minimum of two polarization plates.

Moreover, assuming arguendo that one skilled in the art would think to combine Kataoka with JP '428, the resulting configuration would be a reflective display device that includes at most a single polarization plate and so would not result in the claimed invention. That is, the reason that the phase shifter 7 is used in the device of Kataoka is to enable a configuration without any polarization plates. As described in column 2, lines 17 to 21, the phase shifter and the reflection plate are used instead of a polarization plate. As a result, if the phase shifter of Kataoka were to be used in another display, it would also be used in

combination with a reflector to replace a polarization plate. One or both of the polarization plates of JP '428 would be replaced as a result.

With respect to new claim 9, neither of the references disclose a configuration for use in a projector. JP '428 is for reducing dependency on viewing angle, a problem unrelated to projectors. Moreover, Kataoka discloses a reflective device and so it is not analogous art. Whether a reference is analogous art is determined by whether the art is from the same "field of endeavor." A reference is within the same "field of endeavor" if it has "essentially the same function and structure." A reflective display cannot be used in a projector.

Accordingly, withdrawal of the rejection of claims 1-4 and 7 under 35 U.S.C. §103(a) is respectfully requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

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